United States Environmental Protection Agency
Region 5
Air and Radiation Division
77 West Jackson Boulevard
Chicago, IL 60604

DATE: JUL 11 2013

SUBJECT: Inspection of OMNOVA Solutions Inc.
Mogadore, Ohio

FROM: Molly DeSalle, Environmental Scientist MD
Air Enforcement and Compliance Assurance Section (MI/WI)

THRU: Sarah Marshall, Chief SM
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TO: File

Facility:	OMNOVA Solutions, Inc.
Location:	165 South Cleveland Avenue, Mogadore, Ohio 44260
Inspection Date:	May 1, 2013
Inspection Team:	Molly DeSalle, Environmental Scientist, EPA Region 5 Ray Cullen, Environmental Engineer, EPA Region 5
Facility Attendees:	Alan Sampson, Environmental and Security Manager, OMNOVA Solutions, Inc. Laura Miracle, Ohio Environmental Protection Agency

Purpose of the Inspection:

To investigate, inspect, and determine whether OMNOVA Solutions, Inc. (OMNOVA) is in compliance with the National Emission Standard for Hazardous Air Pollutants for Chemical Manufacturing Area Sources (Subpart VVVVVV), the Ohio State Implementation Plan (SIP), and the Federal Clean Air Act (CAA). This includes interviewing OMNOVA personnel, a facility tour and limited on-site records review.

Overview of Company:

OMNOVA is a latex polymer manufacturer. OMNOVA specializes in producing latex for use in paper, paperboard, carpet, construction, floor care, oil fields, and other nonwoven applications. OMNOVA does not produce final products, only intermediates.

The OMNOVA facility was opened in 1952 by the General Tire and Rubber Company with the sole purpose of producing synthetic tire cord adhesives. Through the years the facility had a number of different owners, until the facility was purchased by OMNOVA on October 1, 1999.

OMNOVA currently employs approximately 126 people and produces around 160 different products. In 2010, OMNOVA generated a total of $1.1 billion in total sales.

Opening Conference:

The inspection team arrived at 9:20 AM on May 1, 2013 and was greeted by the Environmental and Security Manager, Alan Sampson. The inspection team presented their credentials and requested a process overview and tour of the facility.

Facility Operations:

The OMNOVA process begins with the addition of the following raw materials:

- Potassium sulfate;
- Ammonia sulfate; and
- Sodium sulfate.

All of the raw materials are non-hazardous and are received by the facility in bags, via truck.

The raw materials are all added together with water, to create a water-based solution. According to Mr. Sampson, all of OMNOVA's final products contain at least 50% water.

All processes at the facility run in batch cycles, so raw materials are stored in solution holding tanks until the process is ready for a batch. From the solution holding tanks, the raw material water-based solution is metered into a charge tank before being fed to a process reactor.

OMNOVA has 17 batch process reactors that range from 3,500 to 10,000 gallons. The cycle time depends on the product and can be anywhere from eight to twenty hours long.

Each reactor is originally heated to initiate the exothermic reaction, and then cooling jackets are used to maintain specific reaction temperatures. All of the tanks are under a nitrogen blanket. Dduring the blow-down process each tank is directed to a thermal oxidizer.

The facility installed the thermal oxidizer in 1995, when it was tested to have a 99.8% destruction efficiency at 1,500 degrees Fahrenheit. OMNOVA originally used a flare as the reactors main control device; however the facility was receiving over one hundred odor complaints a year and opted to increase their control efficiency. The facility has operated the

thermal oxidizer continuously since 1995. The unit is sensitive to occasional surges in butadiene emissions from the reactors and is known to shut-down a few times a month.

From the reactors, OMNOVA sends the material through a filter, to remove any large particles. Occasionally, the products produced by the reactors do not meet customers' specifications, and so OMNOVA will add additional compounds to meet the specifications. For example, some customers prefer a biocide added to their product, so OMNOVA will add the biocide after the reaction is complete.

Once the products are completed OMNOVA transports approximately 60% of the final products via truck to customers, and 30% via rail. The remaining 10% of final products are either delivered in drums or totes.

All of the liquid waste generated in the process is sent through the city sewer and the solid waste is sent to Republic Waste Landfill. OMNOVA estimates it sends approximately 500,000 pounds of solid waste to the landfill each year.

The facility has eight natural gas boilers on site: five 8.4 mmBTU boilers and three 12.25 mmBTU boilers. The facility also has 42 storage tanks on site, with the capacity to hold 2.7 million callings of final product specifically.

OMNOVA no longer makes tire cord adhesives; nor does the facility clean the reactors between batches.

Facility Tour:

After the overview of OMNOVA's process, the inspection team requested a tour of the facility. The tour began at 11:20 AM.

The inspection team learned that OMNOVA does have a leak detection and repair program (LDAR) at the facility. The facility monitors valves, flanges, and pumps in styrene service every 6 months with a miniRAE monitor. The facility also does monthly visual inspections. OMNOVA uses the following leak rates:

- Pump: 2,500 part per million (ppm);
- Valve: 1,000 ppm; and
- Flange: 500 ppm.

The inspection team also learned that the facility tests and records concentrations of hazardous air pollutants (HAPs) in the facility's wastewater.

The inspection team took 26 pictures of the facility during the tour and provided a copy of the images to the OMNOVA staff.